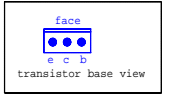


M15V Connector Outside View (J10.1-J10.6)



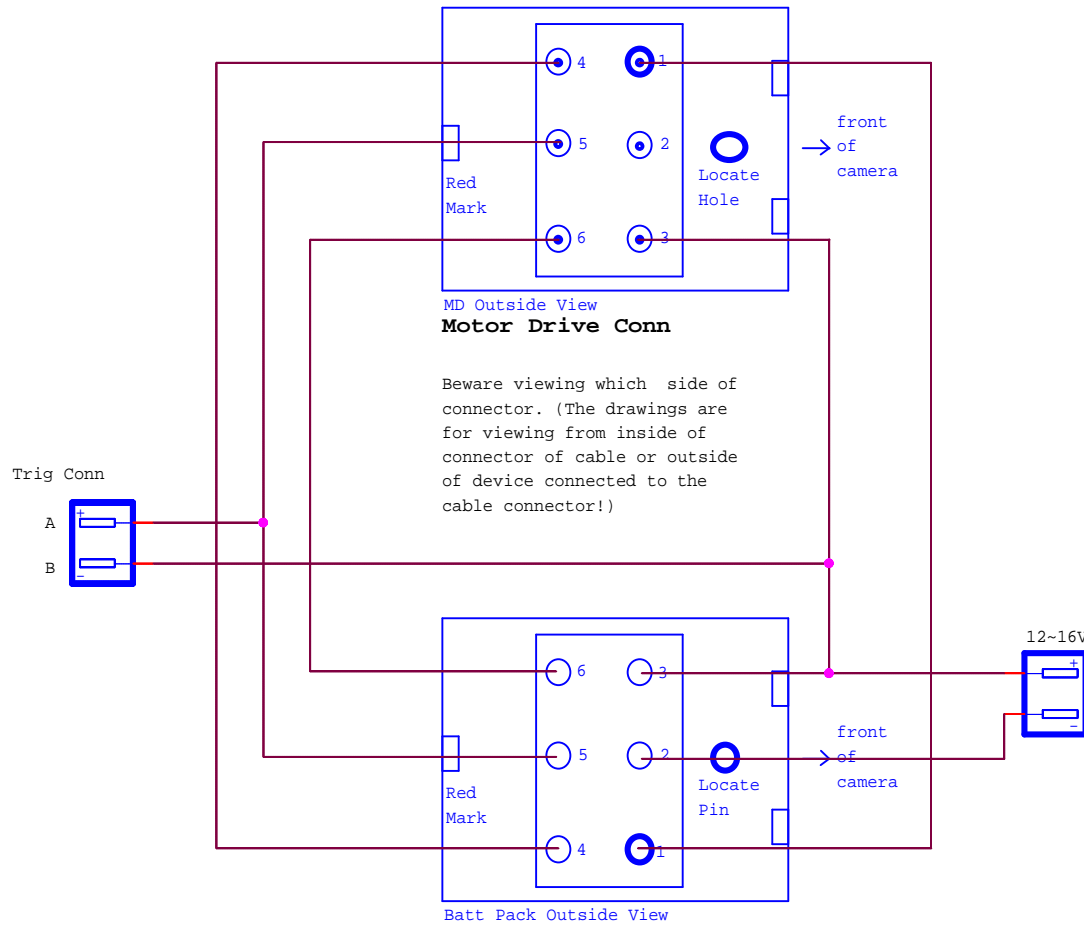
PWR +Ve  
Switched PWR -Ve  
Diode ISOL -Ve

This document is intended for non-commercial educational purposes only. I retain copyright to this material. You may not resell this in any form without my permission. The circuit was reverse engineered so it may contain errors and parts designators may not coincide exactly with the real Olympus schematic. T.Hughes

TimHughes@ieee.org

Notes: R202 is listed in spares list as 27k not 2.7k. 2.7k is the actual value used on the board. The Oly parts list, lists a transient suppressor VD501. This could not be identified on the CCT board. This is probably connected between J101 and J106

Title		
OLYMPUS M15V Battery Pack (c) Tim Hughes 8/2003		
Size	Document Number	Rev
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MD Outside View  
**Motor Drive Conn**

Beware viewing which side of connector. (The drawings are for viewing from inside of connector of cable or outside of device connected to the cable connector!)

Batt Pack Outside View

Title		
OLYMPUS OM, MD Cable (C) Tim Hughes 8/2003		
Size A	Document Number {Doc}	Rev {RevCode}
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Ohmmeter Test of MD1 (NOT same as MD2)

1. Check continuity of Trigger : J105-J103
2. Check continuity of 250 Back connector/SW :  
J104 - Camera ( mirror ) rear contact on baseplate
3. (A) Check continuity wiring : J103 to mirror front contact (baseplate)  
(B) With camera attached to MD and mirror down: J104 to J103.  
(tests camera mirror sw and connector as well)
4. Check continuity wind/park switch :  
Either J101 - MD metal frame  
OR J104 - J106  
(which one to test depends on MD internal SW position)
5. Motor Resitance : J104 - MD metal Frame (Approx 6-12 Ohm)

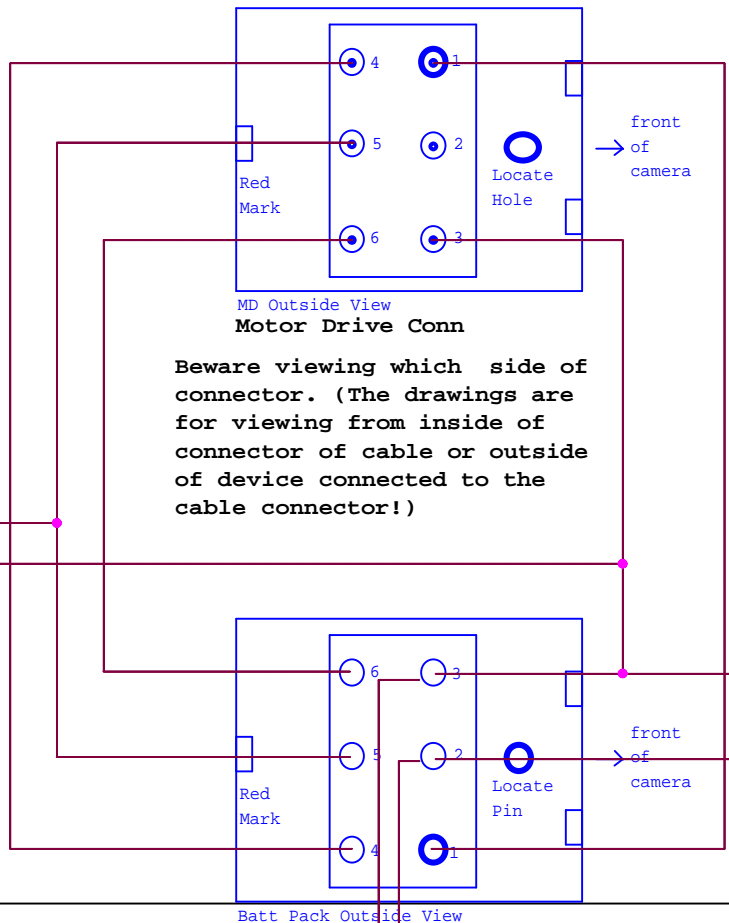
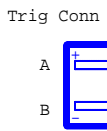
Title		
Testing MD1 with Ohmeter (c) T.Hughes 8/2003		
Size A	Document Number {Doc}	Rev 1.0
Date:	Tuesday, October 28, 2003	Sheet 1 of 1

D

C

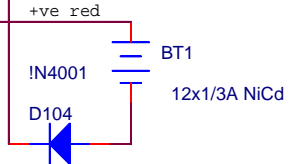
B

A



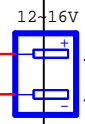
Beware viewing which side of connector. (The drawings are for viewing from inside of connector of cable or outside of device connected to the cable connector!)

The cells used in the original OM pack probably had a rated capacity no more than 180mAH given the vintage and may even have been only 110mAH. More recently Cells of up to approximately 300mAH have been made in the 1/3A size. A good charge rate to use is no more than C/10 for simple NiCd chargers. This gives charge times of about 13-14hours. If the cells are charged at less than C/10 the charge efficiency drops and so for example at C/20 you need to put in more than 28 hours. The recommended charger current suggested in charger cct assumes lowest capacity cells were used to give C/10 of 10-12mA. This is very conservative. You may want to use higher rates.



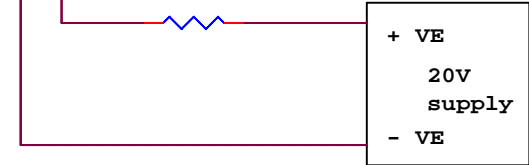
M15V Battery (cct fragment only)

The 12-16V external supply is normally isolated from the internal battery by diode D104. However you can charge the battery from this connector by applying a current limited supply of more than 18V to it to forward bias the diode. Make sure to leave the MD15V switched off and remove the motor drive too !. A simple way to make a supply is to use a 20V "wall wart" supply and limit the current to say ~10mA with a resistor of 330 Ohm 1/2W. We don't know the capacity of the original battery but this should be a safe current for leaving the battery on charge for days even if the cells used are only 110mAH cells. The terminal voltage measured at connector could get to ~17.4V (12\*1.4V+0.6V). Be aware a wall wart rated at 20V may put out more voltage at light load so you might need to use a bit higher resistor if you measure the voltage and find it is a lot higher. use  $R = (V_{out}-17)*100$ . Current will be higher at start and taper off a bit as cells charge.



Current Limit resistor

330 Ohm 1/2W



Homemade charger

Title  
Olympus MD Connector Cable + external Homemade Charger (c) T.Hughes

Size A	Document Number {Doc}	Rev 1.0
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